

Krishnan  
10/517328

Page 1

=> dis his

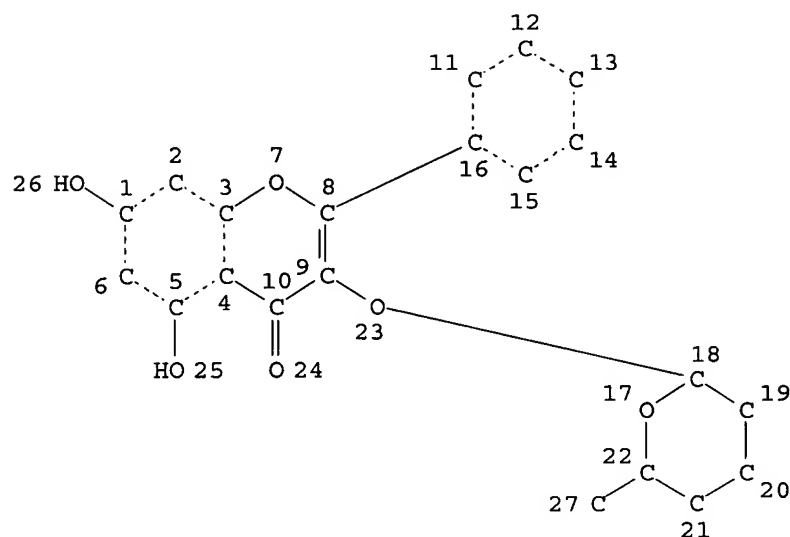
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L2 50 S L1  
L3 STR L1  
L4 50 S L3  
L5 1553 S L3 FUL

=> d l5 que stat

L3 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE

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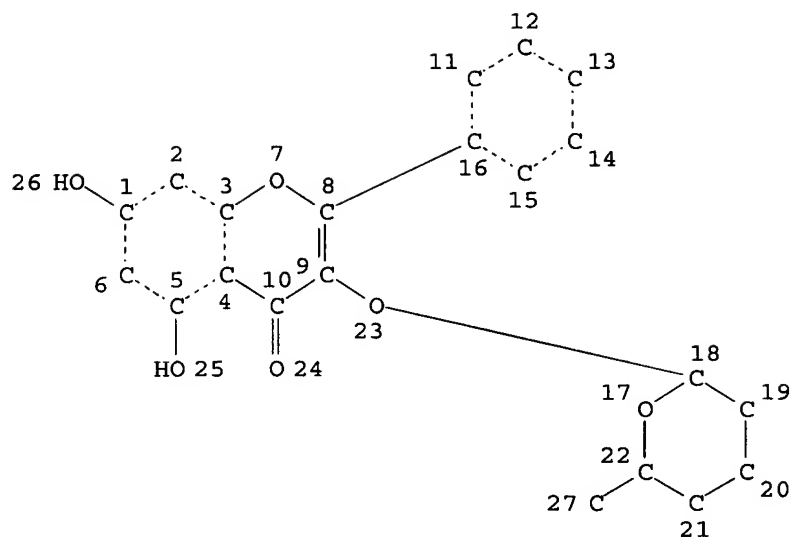
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SEARCH TIME: 00.00.01

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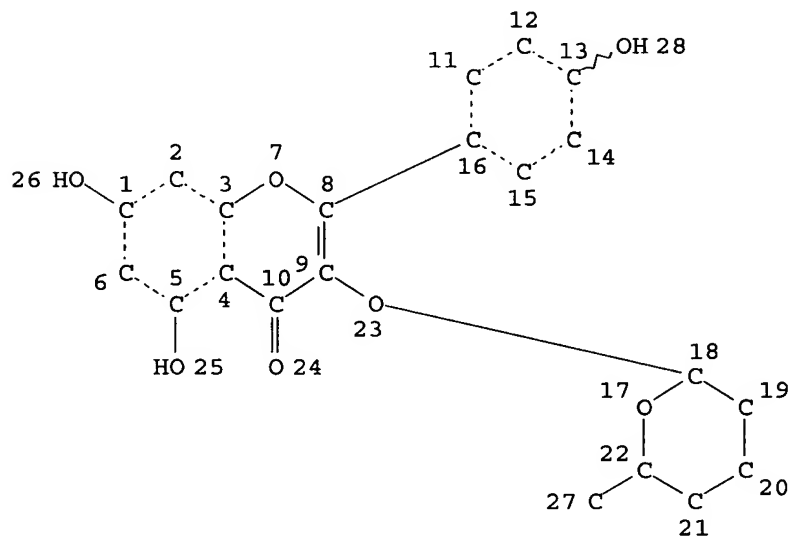
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Page 3

NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE

L7 1407 SEA FILE=REGISTRY SUB=L5 SSS FUL L6

100.0% PROCESSED 1553 ITERATIONS  
SEARCH TIME: 00.00.01

1407 ANSWERS

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY

SESSION

202.82

203.03

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FILE 'BIOSIS' ENTERED AT 12:02:18 ON 22 NOV 2005  
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FILE 'CAPLUS' ENTERED AT 12:02:18 ON 22 NOV 2005  
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L8 1500 FILE MEDLINE  
L9 3176 FILE BIOSIS  
L10 2744 FILE EMBASE  
L11 12307 FILE CAPLUS

TOTAL FOR ALL FILES

L12 19727 L5

=> s pharm? compos? or compos?

L13 276768 FILE MEDLINE  
L14 518133 FILE BIOSIS  
L15 238384 FILE EMBASE  
L16 2657825 FILE CAPLUS

TOTAL FOR ALL FILES

L17 3691110 PHARM? COMPOS? OR COMPOS?

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L18 16 FILE MEDLINE  
L19 300 FILE BIOSIS  
L20 148 FILE EMBASE  
L21 1740 FILE CAPLUS

TOTAL FOR ALL FILES

L22 2204 L12 AND L17

=> s l22 and rsk

L23 0 FILE MEDLINE  
L24 0 FILE BIOSIS  
L25 0 FILE EMBASE  
L26 1 FILE CAPLUS

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

TOTAL FOR ALL FILES  
L27 1 L22 AND RSK

=> d ibib abs hitstr

L27 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:1006705 CAPLUS

DOCUMENT NUMBER: 140:53392

TITLE: Rsk inhibitors, preparation, and therapeutic uses thereof

INVENTOR(S): Smith, Jeffrey A.; Lannigan-Macara, Deborah A.; Poteet-Smith, Celeste E.; Hecht, Sidney M.; Xu, Yaming; Brautigan, David L.

PATENT ASSIGNEE(S): University of Virginia Patent Foundation, USA

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

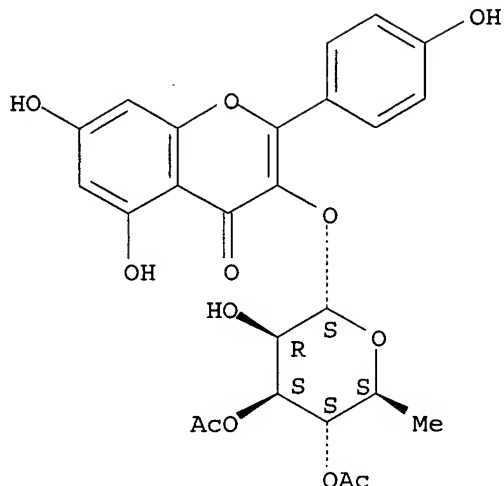
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003105766	A2	20031224	WO 2003-US18734	20030612
WO 2003105766	A3	20040311		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2488864	AA	20031224	CA 2003-2488864	20030612
EP 1539781	A2	20050615	EP 2003-760343	20030612
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005233985	A1	20051020	US 2004-517328	20041209
PRIORITY APPLN. INFO.:			US 2002-388006P	P 20020612
			US 2003-449553P	P 20030224
			WO 2003-US18734	W 20030612
OTHER SOURCE(S):	MARPAT 140:53392			
GI				



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:1006705 CAPLUS

DOCUMENT NUMBER: 140:53392

TITLE: Rsk inhibitors, preparation, and therapeutic uses thereof

INVENTOR(S): Smith, Jeffrey A.; Lannigan-Macara, Deborah A.; Poteet-Smith, Celeste E.; Hecht, Sidney M.; Xu, Yaming; Brautigan, David L.

PATENT ASSIGNEE(S): University of Virginia Patent Foundation, USA

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

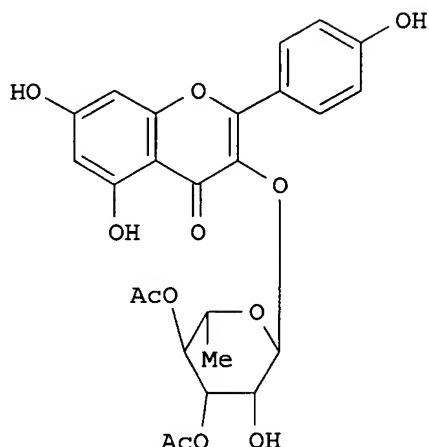
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

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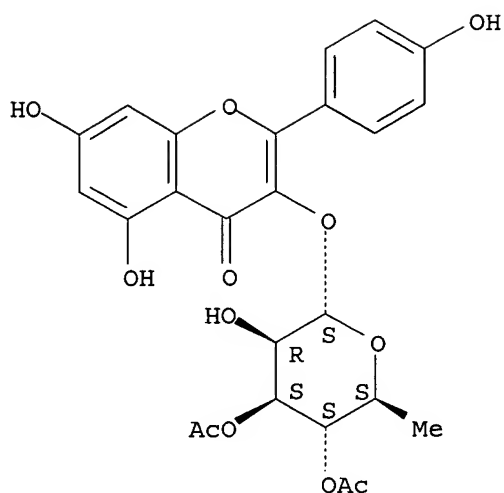
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WO 2003105766	A2	20031224	WO 2003-US18734	20030612
WO 2003105766	A3	20040311		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005233985	A1	20051020	US 2004-517328	20041209
PRIORITY APPLN. INFO.:			US 2002-388006P	P 20020612
			US 2003-449553P	P 20030224
			WO 2003-US18734	W 20030612



**T**

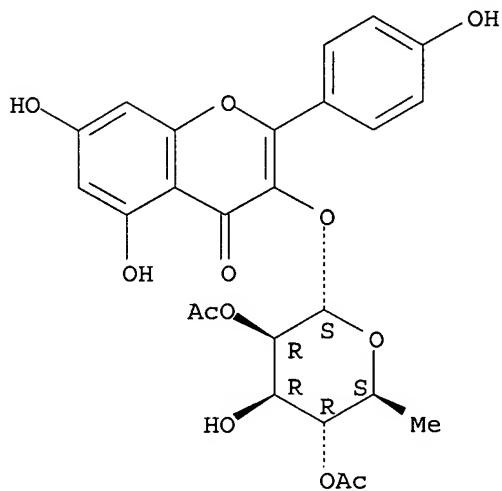
CN 4H-1-Benzopyran-4-one, 3-[(3,4-di-O-acetyl-6-deoxy- $\alpha$ -L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Prepared by: Mary Hale @2-2507 Rem Bldg 1D86



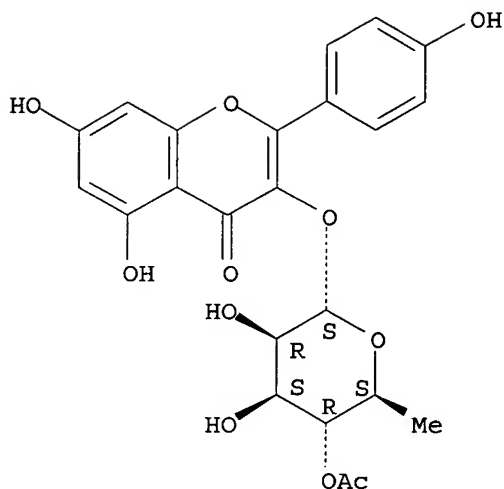
IT 133882-73-2P, SL 0101-2 135618-17-6P, SL 0101-3  
 RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
 (Rsk inhibitors and therapeutic uses)  
 RN 133882-73-2 CAPLUS  
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Absolute stereochemistry.



RN 135618-17-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[(4-O-acetyl-6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L51 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:429254 CAPLUS

DOCUMENT NUMBER: 127:188240

TITLE: Zerumbone, an HIV-inhibitory and cytotoxic sesquiterpene of Zingiber aromaticum and Z. zerumbet  
AUTHOR(S): Dai, Jin Rui; Cardellina, John H., II; McMahon, James B.; Boyd, Michael R.

CORPORATE SOURCE: Laboratory Drug Discovery Research Development, National Cancer Institute, Frederick, MD, 21702, USA  
SOURCE: Natural Product Letters (1997), 10(2), 115-118  
CODEN: NPLEEF; ISSN: 1057-5634

PUBLISHER: Harwood

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Zerumbone and 3",4"-O-diacetylfazelin were isolated from organic exts. of rhizomes of Zingiber aromaticum (Zingiberaceae), and zerumbone and 4"-O-acetylfazelin were obtained from organic exts. of entire plants of Z. zerumbet. Zerumbone exhibited HIV-inhibitory and cytotoxic activities, while the afzelins were inactive in both assays.

IT 135618-16-5, 4"-O-Acetylfazelin

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

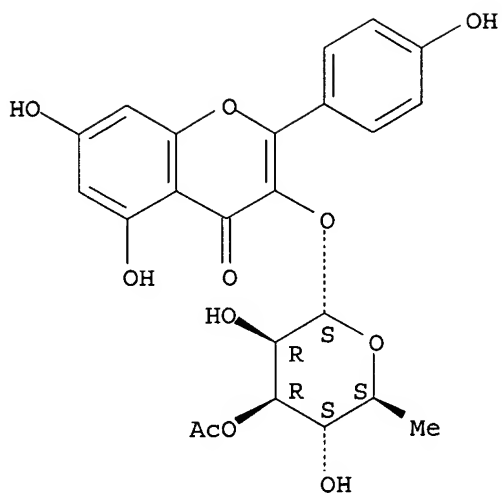
(zerumbone, an HIV-inhibitory and cytotoxic sesquiterpene of Zingiber aromaticum and Z. zerumbet)

RN 135618-16-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[(3-O-acetyl-6-deoxy- $\alpha$ -L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

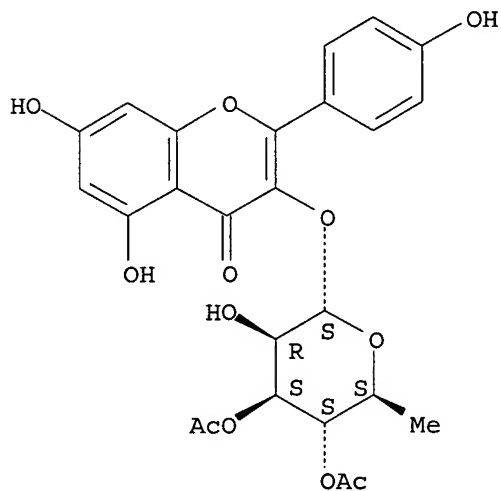
Absolute stereochemistry. Rotation (-).





IT 77307-50-7P, 3'',4''-O-Diacetylfafzelin  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
 (zerumbone, an HIV-inhibitory and cytotoxic sesquiterpene of Zingiber aromaticum and Z. zerumbet)  
 RN 77307-50-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[(3,4-di-O-acetyl-6-deoxy- $\alpha$ -L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> s (anti tumour or anti tumor or neoplas? or cancer or melanoma) and 136  
 L52 46 FILE MEDLINE  
 L53 58 FILE BIOSIS  
 L54 130 FILE EMBASE  
 L55 246 FILE CAPLUS

TOTAL FOR ALL FILES

L56 480 (ANTI TUMOUR OR ANTI TUMOR OR NEOPLAS? OR CANCER OR MELANOMA)  
AND L36

=> s p90 ribosomal s6 kinase or ribosomal s6 kinase or serine threonine kinase or  
mitogen activate? protein kinase or mapk

L57 51111 FILE MEDLINE  
L58 36285 FILE BIOSIS  
L59 37372 FILE EMBASE  
L60 27187 FILE CAPLUS

TOTAL FOR ALL FILES

L61 151955 P90 RIBOSOMAL S6 KINASE OR RIBOSOMAL S6 KINASE OR SERINE THREONI  
NE KINASE OR MITOGEN ACTIVATE? PROTEIN KINASE OR MAPK

=> s l36 and l61

L62 4 FILE MEDLINE  
L63 2 FILE BIOSIS  
L64 5 FILE EMBASE  
L65 5 FILE CAPLUS

TOTAL FOR ALL FILES

L66 16 L36 AND L61

=> s l66 not (l27 or l51)

L67 4 FILE MEDLINE  
L68 2 FILE BIOSIS  
L69 5 FILE EMBASE  
L70 3 FILE CAPLUS

TOTAL FOR ALL FILES

L71 14 L66 NOT (L27 OR L51)

=> dup rem l71

PROCESSING COMPLETED FOR L71

L72 11 DUP REM L71 (3 DUPLICATES REMOVED)

=> d ibib abs histr 1-11;s smith j?/au;s lannigan macara d?/au

'HISTR' IS NOT A VALID FORMAT

In a multifile environment, a format can only be used if it is valid  
in at least one of the files. Refer to file specific help messages  
or the STNGUIDE file for information on formats available in  
individual files.

REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):end

L73 13544 FILE MEDLINE  
L74 16315 FILE BIOSIS  
L75 10468 FILE EMBASE  
L76 17571 FILE CAPLUS

TOTAL FOR ALL FILES

L77 57898 SMITH J?/AU

L78 0 FILE MEDLINE  
L79 0 FILE BIOSIS  
L80 0 FILE EMBASE  
L81 2 FILE CAPLUS

TOTAL FOR ALL FILES

L82 2 LANNIGAN MACARA D?/AU

=> d 172 1-11 ibib abs hitstr;s 177 and (182 or macara d?/au)

L72 ANSWER 1 OF 11 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005252514 EMBASE

TITLE: Quercetin, but not rutin and quercitrin, prevention of H(2)O (2)-induced apoptosis via anti-oxidant activity and heme oxygenase 1 gene expression in macrophages.

AUTHOR: Chow J.-M.; Shen S.-C.; Huan S.K.; Lin H.-Y.; Chen Y.-C.

CORPORATE SOURCE: Y.-C. Chen, Graduate Institute of Pharmacognosy, School of Pharmacy, Taipei Medical University, Taipei, Taiwan, Province of China. yc3270@tmu.edu.tw

SOURCE: Biochemical Pharmacology, (15 Jun 2005) Vol. 69, No. 12, pp. 1839-1851.

Refs: 46

ISSN: 0006-2952 CODEN: BCPA6

PUBLISHER IDENT.: S 0006-2952(05)00195-4

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 022 Human Genetics

030 Pharmacology

037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20050707

Last Updated on STN: 20050707

AB In the present study, we examine the protective mechanism of quercetin (QE) on oxidative stress-induced cytotoxic effect in RAW264.7 macrophages. Results of Western blotting show that QE but not its glycoside rutin (RUT) and quercitrin-induced HO-1 protein expression in a time- and dose-dependent manner, and HO-1 protein induced by QE was blocked by an addition of cycloheximide or actinomycin D. Induction of HO-1 gene expression by QE was accompanied by inducing ERKs, but not JNKs or p38, proteins phosphorylation. Addition of PD98059, but not SB203580 or SP600125, significantly attenuates QE-induced HO-1 protein and mRNA expression associated with blocking the expression of phosphorylated ERKs proteins. H(2)O(2) addition reduces the viability of cells by MTT assay, and appearance of DNA ladders, hypodiploid cells, and an increase in intracellular peroxide level was detected. Addition of QE, but not QI or RUT, significantly reduced the cytotoxic effect induced by H(2)O(2) associated with blocking the production of intracellular peroxide, DNA ladders, and hypodiploid cells. QE protection of cells from H(2)O(2)-induced apoptosis was significantly suppressed by adding HO inhibitor SnPP or ERKs inhibitor PD98059. Additionally, QE protects cells from H(2)O(2)-induced a decrease in the mitochondrial membrane potential and a release of cytochrome c from mitochondria to cytosol by DiOC6 and Western blotting assay, respectively. Activation of apoptotic proteins including the caspase 3, caspase 9, PARP, D4-GDI proteins was identified in H(2)O(2)-treated cells by Western blotting and enzyme activity assay, and that was significantly blocked by an addition of QE, but not RUT and QI. Furthermore, HO-1 catalytic metabolites carbon monoxide (CO), but not Fe(2+), Fe(3+), biliverdin or bilirubin, performed protective effect on cells from H(2)O(2)-induced cell death with an increase in HO-1 protein expression and ERKs protein phosphorylation. These data suggest that induction of HO-1 protein may participate in the protective mechanism of QE on oxidative stress (H(2)O(2))-induced apoptosis, and reduction of intracellular ROS production

and mitochondria dysfunction with blocking apoptotic events were involved. Differential anti-apoptotic effect between QE and its glycosides RUT and QI via distinct HO-1 protein induction was also delineated. .COPYRGT. 2005 Elsevier Inc. All rights reserved.

L72 ANSWER 2 OF 11 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
DUPLICATE 1

ACCESSION NUMBER: 2005:283143 BIOSIS  
DOCUMENT NUMBER: PREV200510072658  
TITLE: **Inhibitors** of the epidermal growth factor  
receptor in apple juice extract.  
AUTHOR(S): Kern, Melanie; Tjaden, Zeina; Ngiewih, Yufanyi; Puppel,  
Nicole; Will, Frank; Dietrich, Helmut; Pahlke, Gudrun;  
Marko, Doris [Reprint Author]  
CORPORATE SOURCE: Univ Kaiserslautern, Dept Chem, Div Food Chem and Environm  
Toxicol, Erwin Schroedinger Str 52, D-67663 Kaiserslautern,  
Germany  
marko@rhrk.uni-kl.de  
SOURCE: Molecular Nutrition & Food Research, (APR 2005) Vol. 49,  
No. 4, pp. 317-328.  
ISSN: 1613-4125.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 27 Jul 2005  
Last Updated on STN: 27 Jul 2005

AB The polyphenol-rich extract of a consumer-relevant apple juice blend was found to potentially **inhibit** the growth of the human colon cancer cell line HT29 in vitro. The epidermal growth factor receptor (EGFR) and its subsequent signaling cascade play an important role in the regulation of cell proliferation in HT29 cells. The protein tyrosine kinase activity of an EGFR preparation was effectively **inhibited** by the polyphenol-rich apple juice extract. **Treatment** of intact cells with this extract resulted in the suppression of the subsequent **mitogen-activated protein kinase** cascade. Amongst the so far identified apple juice constituents, the proanthocyanidins B1 and B2 as well as quercetin-3-glc (isoquercitrin) and quercetin-3-gal (hyperoside) were found to possess substantial EGFR-**inhibitory** properties. However, as to be expected from the final concentration of these potential EGFR **inhibitors** in the original polyphenol-rich extract, a synthetic mixture of the apple juice constituents identified and available so far, including both proanthocyanidins and the quercetin glycosides, showed only marginal **inhibitory** effects on the EGFR. These results permit the assumption that yet unknown constituents contribute substantially to the potent EGFR-**inhibitory** properties of polyphenol-rich apple juice extract. In summary, the polyphenol composition of apple juice possesses promising growth-**inhibitory** properties, affecting proliferation-associated signaling cascades in colon tumor cells.

L72 ANSWER 3 OF 11 MEDLINE on STN DUPLICATE 2  
ACCESSION NUMBER: 2005084568 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 15713899  
TITLE: Myricetin **inhibits** matrix metalloproteinase 2  
protein expression and enzyme activity in colorectal  
carcinoma cells.  
AUTHOR: Ko Ching-Huai; Shen Shing-Chuan; Lee Tony J F; Chen  
Yen-Chou  
CORPORATE SOURCE: Graduate Institute of Pharmaceutical Sciences, School of  
Pharmacy, 250 Wu-Hsing Street, Taipei, Taiwan.  
SOURCE: Molecular cancer therapeutics, (2005 Feb) 4 (2) 281-90.

Journal code: 101132535. ISSN: 1535-7163.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200507  
ENTRY DATE: Entered STN: 20050217  
Last Updated on STN: 20050729  
Entered Medline: 20050728

AB Colorectal carcinoma is a leading cause of human mortality due to its high metastatic ability. Because the activation of matrix metalloproteinases (MMP) is a key factor in the metastatic process, agents with the ability to **inhibit** MMP activity have potential in the **treatment** of colorectal carcinoma. In the present study, among 36 flavonoids examined, myricetin was found to be the most potent **inhibitor** of MMP-2 enzyme activity in COLO 205 cells (IC<sub>50</sub> = 7.82 micromol/L). Myricetin **inhibition** of MMP-2 enzyme activity was also found in the human colorectal carcinoma cell lines COLO 320HSR, COLO 320DM, HT 29, and COLO 205-X (IC<sub>50</sub> = 11.18, 11.56, 13.25, and 23.51 micromol/L, respectively). In contrast, no **inhibitory** effect of MMP-2 protein expression or enzyme activity was observed in myricitrin (myricetin-3-rhamnoside)-**treated** cells. In 12-O-tetradecanoylphorbol-13-acetate (TPA)-stimulated COLO 205 cells, an increase in MMP-2 protein expression and enzyme activity, as well as of protein kinase C (PKC) alpha protein translocation, extracellular signal-regulated kinase (ERK) 1/2 protein phosphorylation, and c-Jun protein expression was observed. ERK **inhibitor** (PD98059) and PKC **inhibitors** (GF-109203X and H-7), but not p38 **inhibitor** (SB203580) or c-jun-NH2-kinase **inhibitor** (SP600125), significantly **inhibited** TPA-induced MMP-2 protein expression, with reduced ERK phosphorylation and c-Jun protein expression. Addition of myricetin but not myricitrin suppressed TPA-induced MMP-2 protein expression in COLO 205 cells by blocking the TPA-induced events, including translocation of PKCalpha from cytosol to membrane, phosphorylation of ERK1/2 protein, and induction of c-Jun protein expression. Addition of PD98059 or GF-109203X significantly enhanced the **inhibitory** effect of myricetin on MMP-2 enzyme activity induced by TPA. Furthermore, myricetin, but not myricitrin, suppressed TPA-induced invasion of COLO 205 cells in an in vitro invasion assay using Engelbreth-Holm-Swarm sarcoma tumor extract Matrigel-coated Transwells. Results of the present study indicate that myricetin significantly blocked both endogenous and TPA-induced MMP-2 enzyme activity by **inhibiting** its protein expression and enzyme activity. The blockade involved suppression of PKC translocation, ERK phosphorylation, and c-Jun protein expression.

L72 ANSWER 4 OF 11 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004378094 EMBASE  
TITLE: Induction of PC12 cell differentiation by flavonoids is dependent upon extracellular signal-regulated kinase activation.  
AUTHOR: Sagara Y.; Vanhnasy J.; Maher P.  
CORPORATE SOURCE: P. Maher, Department of Cell Biology, Scripps Research Institute, 10550 N. Torrey Pines Road, San Diego, CA 92037, United States. pmaher@scripps.edu  
SOURCE: Journal of Neurochemistry, (2004) Vol. 90, No. 5, pp. 1144-1155.  
Refs: 42  
ISSN: 0022-3042 CODEN: JONRA

COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 008 Neurology and Neurosurgery  
 029 Clinical Biochemistry  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20040924  
 Last Updated on STN: 20040924

AB Many of the physiological benefits attributed to flavonoids are thought to stem from their potent antioxidant and free radical scavenging properties. Recently, it was shown that flavonoids protect nerve cells from oxidative stress by multiple mechanisms, only one of which is directly related to their antioxidant activity, suggesting that specific flavonoids may have other properties that could make them useful in the **treatment** of conditions that lead to nerve cell death. In particular, it was asked if any flavonoid could mimic neurotrophic proteins. To examine this possibility, we looked at the ability of flavonoids to induce nerve cell differentiation using PC12 cells. PC12 cells were **treated** with a variety of flavonoids to determine if there was a correlation between their neuroprotective activity and their neurite outgrowth-promoting activity. In addition, the signaling pathways required for flavonoid-induced differentiation were examined. We found that only a small subset of the flavonoids that were neuroprotective could induce neurite outgrowth by an extracellular signal-regulated kinase-dependent process. There was a strong correlation between the concentrations of the flavonoids that were neuroprotective and the concentrations that induced differentiation. These results suggest that the consumption of specific flavonoids could have further beneficial effects on nerve cells following injury, in pathological conditions or in normal aging.

L72 ANSWER 5 OF 11 MEDLINE on STN  
 ACCESSION NUMBER: 2005009206 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 15635257  
 TITLE: In vivo modulation of signaling factors involved in cell survival.  
 AUTHOR: Kumar Mitra Anirban; Krishna Malini  
 CORPORATE SOURCE: Radiation Biology and Health Sciences Division Bhabha Atomic Research Centre Trombay, Mumbai, India.  
 SOURCE: Journal of radiation research, (2004 Dec) 45 (4) 491-5.  
 Journal code: 0376611. ISSN: 0449-3060.  
 PUB. COUNTRY: Japan  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200505  
 ENTRY DATE: Entered STN: 20050107  
 Last Updated on STN: 20050513  
 Entered Medline: 20050512

AB In vivo expression of cell survival factors protein kinase C (PKC), nuclear factor kappaB (NFkappaB), and extracellular signal-regulated kinase (Erk), which may contribute to the development of radioresistance following radiotherapy, was looked for. Their modulation with natural compounds (curcumin, rutin or nicotinamide) was attempted in mice bearing a serially transplanted fibrosarcoma. Expression of protein kinase C was isoform specific. No translocation of any of the isozymes was noticed following gamma-irradiation as has been reported elsewhere. None of the isoforms could be significantly **inhibited** by the modulators. However, significant **inhibition** of radiation-induced ERK and NFkappaB was observed with both curcumin and nicotinamide. Therefore we conclude that use of **inhibitors** of MAP kinases or NFkappaB may

be a more promising strategy to enhance tumour cell killing or to prevent the development of radioresistance during radiotherapy.

L72 ANSWER 6 OF 11 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN  
 ACCESSION NUMBER: 2004034738 EMBASE  
 TITLE: Nutraceuticals, apoptosis, and disease prevention.  
 AUTHOR: Gossiau A.; Chen K.Y.  
 CORPORATE SOURCE: Dr. K.Y. Chen, Dept. of Chem. and Chemical Biology, Rutgers University, Piscataway, NJ 08854-8087, United States.  
 kychen@rutchem.rutgers.edu  
 SOURCE: Nutrition, (2004) Vol. 20, No. 1, pp. 95-102.  
 Refs: 143  
 ISSN: 0899-9007 CODEN: NUTRER  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 005 General Pathology and Pathological Anatomy  
 016 Cancer  
 022 Human Genetics  
 029 Clinical Biochemistry  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 20040212  
 Last Updated on STN: 20040212  
 DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L72 ANSWER 7 OF 11 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 DUPLICATE 3  
 ACCESSION NUMBER: 2003:488158 BIOSIS  
 DOCUMENT NUMBER: PREV200300489777  
 TITLE: Tomato and soy polyphenols reduce insulin-like growth factor-I-stimulated rat prostate cancer cell proliferation and apoptotic resistance in vitro via **inhibition** of intracellular signaling pathways involving tyrosine kinase.  
 AUTHOR(S): Wang, Shihua; DeGroff, Valerie L.; Clinton, Steven K.  
 [Reprint Author]  
 CORPORATE SOURCE: Division of Hematology and Oncology, Department of Internal Medicine, College of Medicine and Public Health, Ohio State University, Columbus, OH, 43210, USA  
 clinton-1@medctr.osu.edu  
 SOURCE: Journal of Nutrition, (July 2003) Vol. 133, No. 7, pp. 2367-2376. print.  
 ISSN: 0022-3166 (ISSN print).  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 22 Oct 2003  
 Last Updated on STN: 22 Oct 2003

AB We examined the ability of polyphenols from tomatoes and soy (genistein, quercetin, kaempferol, biochanin A, daidzein and rutin) to modulate insulin-like growth factor-I (IGF-I)-induced in vitro proliferation and apoptotic resistance in the AT6.3 rat prostate cancer cell line. IGF-I at 50 mug/L in serum-free medium produced maximum proliferation and minimized apoptosis. Polyphenols exhibited different abilities to modulate IGF-I-induced proliferation, cell cycle progression (flow cytometry) and apoptosis (Annexin V/propidium iodide and terminal deoxynucleotidyltransferase-mediated deoxyuridine 5'-triphosphate nick end labeling). Genistein, quercetin, kaempferol and biochanin A exhibited dose-dependent **inhibition** of growth with a 50% **inhibitory** concentration (IC50) between 25 and 40 mumol/L, whereas rutin and daidzein were less potent with an IC50 of >60 mumol/L.

Genistein and kaempferol potently induced G2/M cell cycle arrest. Genistein, quercetin, kaempferol and biochanin A, but not daidzein and rutin, counteracted the antiapoptotic effects of IGF-I. Human prostate epithelial cells grown in growth factor-supplemented medium were also sensitive to growth **inhibition** by polyphenols. Genistein, biochanin A, quercetin and kaempferol reduced the insulin receptor substrate-1 (IRS-1) content of AT6.3 cells and prevented the down-regulation of IGF-I receptor beta in response to IGF-I binding. IGF-I-stimulated proliferation was dependent on activation of **mitogen-activated protein kinase** /extracellular signal-regulated kinase (ERK) and phosphatidylinositide 3-kinase pathways. Western blotting demonstrated that ERK1/2 was constitutively phosphorylated in AT6.3 cells with no change in response to IGF-I, whereas IRS-1 and AKT were rapidly and sensitively phosphorylated after IGF-I stimulation. Several polyphenols suppressed phosphorylation of AKT and ERK1/2, and more potently **inhibited** IRS-1 tyrosyl phosphorylation after IGF-I exposure. In summary, polyphenols from soy and tomato products may counteract the ability of IGF-I to stimulate proliferation and prevent apoptosis via **inhibition** of multiple intracellular signaling pathways involving tyrosine kinase activity.

L72 ANSWER 8 OF 11 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN  
 ACCESSION NUMBER: 2003470677 EMBASE  
 TITLE: Polyphenolic antioxidants **inhibit** peptide presentation by antigen-presenting cells.  
 AUTHOR: Gong J.; Chen S.-S.  
 CORPORATE SOURCE: S.-S. Chen, Division of Allergy, La Jolla Inst. for Allerg./Immunol., San Diego, CA, United States. achen@i-genetics.org  
 SOURCE: International Immunopharmacology, (2003) Vol. 3, No. 13-14, pp. 1841-1852.  
 Refs: 32  
 ISSN: 1567-5769 CODEN: IINMBA  
 COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 026 Immunology, Serology and Transplantation  
 030 Pharmacology  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20031204  
 Last Updated on STN: 20031204

AB Antigen-presenting cells (APC) provide two essential signals, e.g., antigenic peptides as well as costimulatory molecules for T-cell activation. Small molecules of smoke tobacco extracts (SM-STE) **inhibited** antigen presentation of A20 to OVAp-specific T-cell hybridomas. Pretreatment of A20 but not T hybridomas abrogates the APC function. Viability of APC and levels of MHCII, CD40 and B7 of APC were not affected by this **treatment**. The active principle, **inhibiting** APC was reproduced with pure tobacco polyphenols, quercetin and its glycoside, rutin. Antioxidant activity of rutin is relevant since rutin downregulated levels of reactive oxygen species (ROS) in phorbol ester-stimulated A20; moreover, another antioxidant, N-acetyl cysteine (NAC) also **inhibited** antigen presentation, albeit at a higher concentration. Other types of APC, such as bone marrow-derived mast cells (BMMC), MHCII-transfected fibroblast, and splenocytes are affected by tobacco polyphenols. We propose that polyphenols may affect redox-sensitive signal transduction pathway since APC function of PD 98059, MEK **inhibitor**-pretreated A20 were similarly abrogated.

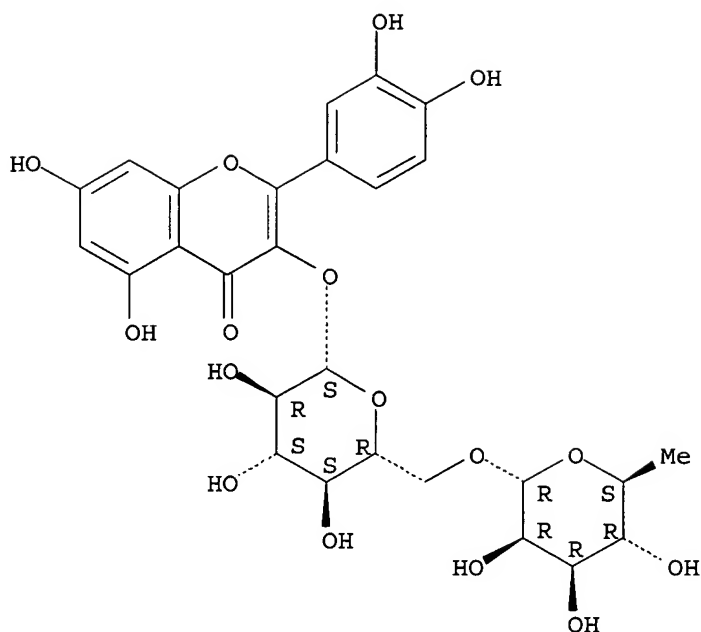


Taken together, we propose that maintaining appropriate intracellular redox of APC is crucial for its antigen-presenting function. .COPYRGT. 2003 Elsevier B.V. All rights reserved.

L72 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:712921 CAPLUS  
 DOCUMENT NUMBER: 137:242187  
 TITLE: Neuroprotective effects of **mitogen-activated protein kinase (MAPK) cascade inhibitors**  
 INVENTOR(S): Baskys, Andrius  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 11 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	US 6451837	B1	20020917	US 2000-653065	20000901
PRIORITY APPLN. INFO.:				US 1999-151955P	P 19990901
AB	A method is provided for <b>therapeutic</b> use of a class of compds. that are effective in protecting nerve cells from deterioration and cell death arising from degenerative disease, trauma or aging and may be used to achieve a similar effect in male and female subjects with minimal adverse side effects. The method comprises administering a <b>therapeutically</b> ED of a natural or synthetic bioflavonoid that acts as an <b>MAPK</b> cascade antagonist. Examples of bioflavonoids that may be used in the present method are apigenin and 2-(2'-amino-3'-methoxyphenyl)-oxanaphthalen-4-one (PD098059).				
IT	153-18-4, Rutin 482-36-0, Hyperin 522-12-3, Quercitrin				
	RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(neuroprotective effects of <b>mitogen-activated protein kinase (MAPK) cascade inhibitors</b> )				
RN	153-18-4 CAPLUS				
CN	4H-1-Benzopyran-4-one, 3-[[6-O-(6-deoxy- $\alpha$ -L-mannopyranosyl)- $\beta$ -D-glucopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)				

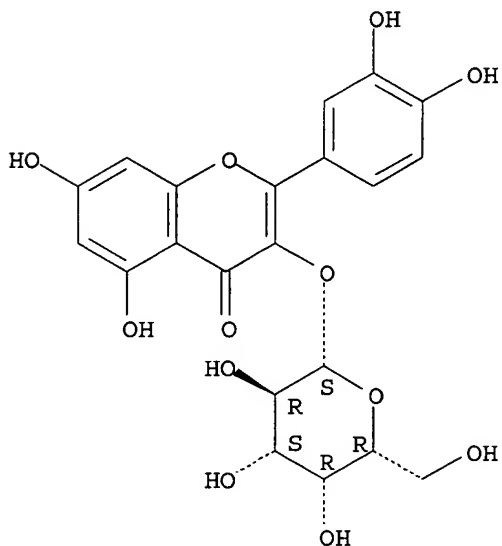
Absolute stereochemistry. Rotation (+).



RN 482-36-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3-(β-D-galactopyranosyloxy)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

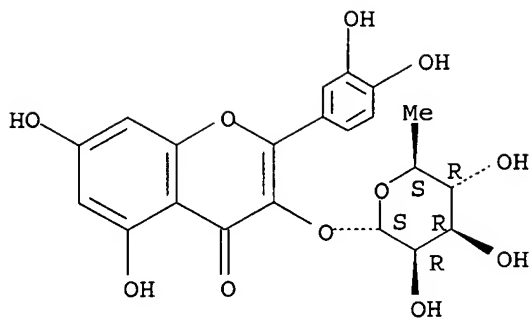
Absolute stereochemistry.



RN 522-12-3 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L72 ANSWER 10 OF 11 MEDLINE on STN  
 ACCESSION NUMBER: 1999290645 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 10363977  
 TITLE: Competitive and noncompetitive inhibition of the DNA-dependent protein kinase.  
 AUTHOR: Izzard R A; Jackson S P; Smith G C  
 CORPORATE SOURCE: Wellcome/CRC Institute, Cambridge, United Kingdom.  
 SOURCE: Cancer research, (1999 Jun 1) 59 (11) 2581-6.  
 Journal code: 2984705R. ISSN: 0008-5472.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199906  
 ENTRY DATE: Entered STN: 19990714  
 Last Updated on STN: 20021219  
 Entered Medline: 19990629

AB The DNA-dependent protein kinase (DNA-PK) is a serine/threonine protein kinase that is involved in mammalian DNA double-strand break repair. The catalytic subunit of DNA-PK (DNA-PKcs) shares sequence homology in its kinase domain with phosphatidylinositol (PI) 3-kinase. Here, we provide a detailed kinetic analysis of DNA-PK inhibition by the PI 3-kinase inhibitor wortmannin and demonstrate this inhibition to be of a noncompetitive nature, with a  $K_i$  of 120 nM. Another inhibitor of PI 3-kinase. LY294002, its parent compound, quercetin, and other derivatives have also been studied. These chemicals are competitive inhibitors of DNA-PK, with LY294002 having a  $K_i$  of 6.0 microm. Using an antibody to wortmannin, we found that this compound binds covalently to the kinase domain of DNA-PKcs both in vitro and in vivo. Binding of wortmannin to the active site of DNA-PKcs is inhibited by ATP but not by a peptide substrate. Furthermore, wortmannin is able to bind to DNA-PKcs independently of Ku, and it is not stimulated by the presence of DNA. This suggests that the ATP binding site of DNA-PKcs is open constitutively and that DNA activation of the kinase is mediated via another mechanism.

L72 ANSWER 11 OF 11 MEDLINE on STN  
 ACCESSION NUMBER: 95192049 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 7885836  
 TITLE: Promoter control of translation in Xenopus oocytes.  
 AUTHOR: Gunkel N; Braddock M; Thorburn A M; Muckenthaler M; Kingsman A J; Kingsman S M  
 CORPORATE SOURCE: EMBL, Heidelberg, Germany.

SOURCE: Nucleic acids research, (1995 Feb 11) 23 (3) 405-12.  
 Journal code: 0411011. ISSN: 0305-1048.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals; AIDS  
 ENTRY MONTH: 199504  
 ENTRY DATE: Entered STN: 19950425  
 Last Updated on STN: 20020420  
 Entered Medline: 19950411

AB The HIV-1 promoter directs the high level production of transcripts in *Xenopus* oocytes. However, despite being exported to the cytoplasm, the transcripts are not translated [M. Braddock, A. M. Thorburn, A. Chambers, G. D. Elliott, G. J. Anderson, A. J. Kingsman and S. M. Kingsman (1990) *Cell*, 62, 1123-1133]. We have shown previously that this is a function of promoter sequences and is independent of the TAR RNA element that is normally located at the 5' end of all HIV mRNAs. We now show that a three nucleotide substitution at position -340, upstream of the RNA start site, reverses the translation inhibition. This site coincides with a sequence that can bind the haematopoietic transcription factor GATA. The inhibition of translation can also be reversed by treatment with inhibitors of casein kinase II or by injection into the nucleus of antibodies specific for the FRGY2 family of RNP proteins. We suggest that the -340 site influences the quality of the transcription complex such that transcripts are diverted to a nucleus-dependent translation inhibition pathway.

L83 0 FILE MEDLINE  
 L84 0 FILE BIOSIS  
 L85 0 FILE EMBASE  
 L86 2 FILE CAPLUS

## TOTAL FOR ALL FILES

L87 2 L77 AND (L82 OR MACARA D?/AU)

=> d 1-2 ibib abs hitstr

L87 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:34913 CAPLUS

DOCUMENT NUMBER: 142:132311

TITLE: Kinase ERK7 and ERK8 as novel diagnostic markers for diagnosis of estrogen responsive cancer

INVENTOR(S): Lannigan-Macara, Deborah A.; Henrich, Lorin M.; Smith, Jeffrey A.

PATENT ASSIGNEE(S): University of Virginia Patent Foundation, USA

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005003371	A2	20050113	WO 2004-US19181	20040617
WO 2005003371	A3	20050428		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-478992P P 20030617

AB The present invention is directed in part to the discovery of a novel signal transduction pathway that regulates estrogen responsiveness. Human extracellular signal-regulated kinase 8 (ERK8) has been discovered by applicants to preferentially enhance the destruction of ER $\alpha$ , and loss of ERK8 is correlated with breast cancer progression. Thus monitoring the expression of ERK8 can be used as a diagnostic and therapeutic indicator of cancer and cancer progression. ERK7 specifically enhanced ER $\alpha$  degrdn and ERK7 regulation of ER $\alpha$  degradation rate is important in determining estrogen responsiveness. Although ERK7 may enhance Ser-118 phosphorylation it seems that mechanisms other than ER $\alpha$  phosphorylation are important in targeting ER $\alpha$  for destruction. The invention provides the protein sequence of human ERK8.

L87 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:1006705 CAPLUS

DOCUMENT NUMBER: 140:53392

TITLE: Rsk inhibitors, preparation, and therapeutic uses thereof

INVENTOR(S): Smith, Jeffrey A.; Lannigan-Macara, Deborah A.; Poteet-Smith, Celeste E.; Hecht, Sidney M.; Xu, Yaming; Brautigan, David L.

PATENT ASSIGNEE(S): University of Virginia Patent Foundation, USA

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003105766	A2	20031224	WO 2003-US18734	20030612
WO 2003105766	A3	20040311		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
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CA 2488864	AA	20031224	CA 2003-2488864	20030612
EP 1539781	A2	20050615	EP 2003-760343	20030612
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005233985	A1	20051020	US 2004-517328	20041209
PRIORITY APPLN. INFO.:			US 2002-388006P	P 20020612

US 2003-449553P

P 20030224

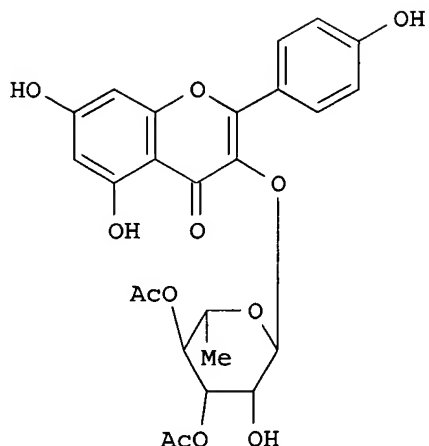
WO 2003-US18734

W 20030612

OTHER SOURCE(S) :

MARPAT 140:53392

GI



I

AB The invention discloses compds. and compns. that have Rsk-specific inhibitory activity. Compds. of the invention include small mol. inhibitors, e.g. I. Synthetic procedures leading to I are described, as are isolation procedures from *Forsteronia refracta*. Other Rsk-specific inhibitors include e.g. antisense oligonucleotides. In addition, inhibition of Rsk by the compds. has been discovered to halt the proliferation of cancer cell lines while having little effect on the proliferation rate of normal cells. Therefore, the invention identifies Rsk as a target for therapeutic intervention in diseased states in which the disease or the symptoms can be ameliorated by inhibition of Rsk catalytic activity.

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(FILE 'HOME' ENTERED AT 11:56:35 ON 22 NOV 2005)

FILE 'REGISTRY' ENTERED AT 11:56:43 ON 22 NOV 2005

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 L13 276768 FILE MEDLINE  
 L14 518133 FILE BIOSIS  
 L15 238384 FILE EMBASE

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L22      2204 S L12 AND L17
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L27      1 S L22 AND RSK
L28      4653890 FILE MEDLINE
L29      3541114 FILE BIOSIS
L30      4235684 FILE EMBASE
L31      4773546 FILE CAPLUS
L32      869 FILE MEDLINE
L33      782 FILE BIOSIS
L34      1208 FILE EMBASE
L35      3182 FILE CAPLUS
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L36      6041 S L12 AND (THERAP? OR TREAT? OR INHIBIT?)
L37      0 FILE MEDLINE
L38      0 FILE BIOSIS
L39      0 FILE EMBASE
L40      0 FILE CAPLUS
TOTAL FOR ALL FILES
L41      0 S RSK! AND L36
L42      14 FILE MEDLINE
L43      46 FILE BIOSIS
L44      14 FILE EMBASE
L45      74 FILE CAPLUS
TOTAL FOR ALL FILES
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L47      0 FILE MEDLINE
L48      0 FILE BIOSIS
L49      0 FILE EMBASE
L50      3 FILE CAPLUS
TOTAL FOR ALL FILES
L51      3 S L36 AND L46
L52      46 FILE MEDLINE
L53      58 FILE BIOSIS
L54      130 FILE EMBASE
L55      246 FILE CAPLUS
TOTAL FOR ALL FILES
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L57      51111 FILE MEDLINE
L58      36285 FILE BIOSIS
L59      37372 FILE EMBASE
L60      27187 FILE CAPLUS
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L64      5 FILE EMBASE
L65      5 FILE CAPLUS
TOTAL FOR ALL FILES

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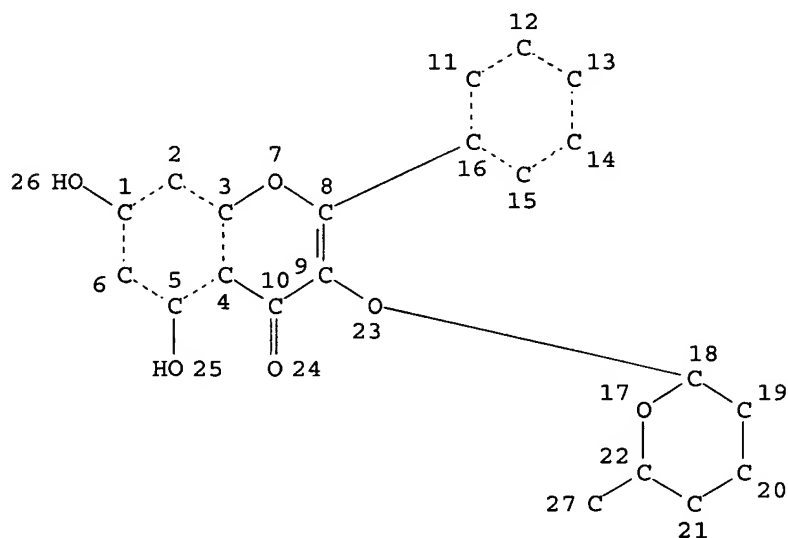
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L80          0 FILE EMBASE
L81          2 FILE CAPLUS
TOTAL FOR ALL FILES
L82          2 S LANNIGAN MACARA D?/AU
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L84          0 FILE BIOSIS
L85          0 FILE EMBASE
L86          2 FILE CAPLUS
TOTAL FOR ALL FILES
L87          2 S L77 AND (L82 OR MACARA D?/AU)

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L3          STR

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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
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 NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE  
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L90 0 FILE EMBASE  
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TOTAL FOR ALL FILES

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L94 0 FILE BIOSIS  
L95 0 FILE EMBASE  
L96 1 FILE CAPLUS

TOTAL FOR ALL FILES

L97 1 L92 NOT L87

=> d ibib abs hitstr

L97 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:101479 CAPLUS

DOCUMENT NUMBER: 142:329195

TITLE: Identification of the first specific inhibitor of p90 ribosomal S6 kinase (RSK) reveals an unexpected role for RSK in cancer cell proliferation

AUTHOR(S): Smith, Jeffrey A.; Poteet-Smith, Celeste E.; Xu, Yaming; Errington, Timothy M.; Hecht, Sidney M.; Lannigan, Deborah A.

CORPORATE SOURCE: Center for Cell Signaling, University of Virginia, Charlottesville, VA, USA

SOURCE: Cancer Research (2005), 65(3), 1027-1034  
CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB P90 ribosomal S6 kinase (RSK) is an important downstream effector of mitogen-activated protein kinase, but its biol. functions are not well understood. The authors have now identified the first small-mol., RSK-specific inhibitor, which they isolated from the tropical plant *Forsteronia refracta*. The authors have named this novel inhibitor SL0101. SL0101 shows remarkable specificity for RSK. The major determinant of SL0101-binding specificity is the unique ATP-interacting sequence in the amino-terminal kinase domain of RSK. SL0101 inhibits proliferation of the human breast cancer cell line MCF-7, producing a cell cycle block in G1 phase with an efficacy paralleling its ability to inhibit RSK in intact cells. RNA interference of RSK expression confirmed that RSK regulates MCF-7 proliferation. Interestingly, SL0101 does not alter proliferation of a normal human breast cell line MCF-10A, although SL0101 inhibits RSK in these cells. RSK is overexpressed in .apprx. 50% of human breast cancer tissue samples, suggesting that regulation of RSK has been compromised. Thus, RSK has an unexpected role in proliferation of transformed cells and may be a useful new target for chemotherapeutic agents. SL0101 will provide a powerful new tool to dissect the mol.

functions of RSK in cancer cells.

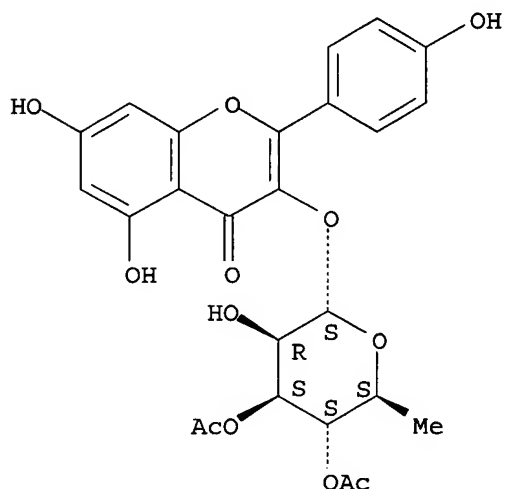
IT 77307-50-7

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (identification of first specific inhibitor of p90 ribosomal S6 kinase (RSK) reveals an unexpected role for RSK in cancer cell proliferation)

RN 77307-50-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[(3,4-di-O-acetyl-6-deoxy- $\alpha$ -L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> dis his

(FILE 'HOME' ENTERED AT 11:56:35 ON 22 NOV 2005)

FILE 'REGISTRY' ENTERED AT 11:56:43 ON 22 NOV 2005

L1 STR  
L2 50 S L1  
L3 STR L1  
L4 50 S L3  
L5 1553 S L3 FUL  
L6 STR L3  
L7 1407 SEARCH L6 SUB=L5 FUL

FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS' ENTERED AT 12:02:18 ON 22 NOV 2005

L8 1500 FILE MEDLINE  
L9 3176 FILE BIOSIS  
L10 2744 FILE EMBASE  
L11 12307 FILE CAPLUS  
TOTAL FOR ALL FILES  
L12 19727 S L5  
L13 276768 FILE MEDLINE  
L14 518133 FILE BIOSIS  
L15 238384 FILE EMBASE  
L16 2657825 FILE CAPLUS

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TOTAL FOR ALL FILES
L17      3691110 S PHARM? COMPOS? OR COMPOS?
L18      16 FILE MEDLINE
L19      300 FILE BIOSIS
L20      148 FILE EMBASE
L21      1740 FILE CAPLUS
TOTAL FOR ALL FILES
L22      2204 S L12 AND L17
L23      0 FILE MEDLINE
L24      0 FILE BIOSIS
L25      0 FILE EMBASE
L26      1 FILE CAPLUS
TOTAL FOR ALL FILES
L27      1 S L22 AND RSK
L28      4653890 FILE MEDLINE
L29      3541114 FILE BIOSIS
L30      4235684 FILE EMBASE
L31      4773546 FILE CAPLUS
L32      869 FILE MEDLINE
L33      782 FILE BIOSIS
L34      1208 FILE EMBASE
L35      3182 FILE CAPLUS
TOTAL FOR ALL FILES
L36      6041 S L12 AND (THERAP? OR TREAT? OR INHIBIT?)
L37      0 FILE MEDLINE
L38      0 FILE BIOSIS
L39      0 FILE EMBASE
L40      0 FILE CAPLUS
TOTAL FOR ALL FILES
L41      0 S RSK! AND L36
L42      14 FILE MEDLINE
L43      46 FILE BIOSIS
L44      14 FILE EMBASE
L45      74 FILE CAPLUS
TOTAL FOR ALL FILES
L46      148 S FORSTERONIA REFRACTA OR ZINGIBER ZERUMBET
L47      0 FILE MEDLINE
L48      0 FILE BIOSIS
L49      0 FILE EMBASE
L50      3 FILE CAPLUS
TOTAL FOR ALL FILES
L51      3 S L36 AND L46
L52      46 FILE MEDLINE
L53      58 FILE BIOSIS
L54      130 FILE EMBASE
L55      246 FILE CAPLUS
TOTAL FOR ALL FILES
L56      480 S (ANTI TUMOUR OR ANTI TUMOR OR NEOPLAS? OR CANCER OR MELANOMA)
L57      51111 FILE MEDLINE
L58      36285 FILE BIOSIS
L59      37372 FILE EMBASE
L60      27187 FILE CAPLUS
TOTAL FOR ALL FILES
L61      151955 S P90 RIBOSOMAL S6 KINASE OR RIBOSOMAL S6 KINASE OR SERINE THRE
L62      4 FILE MEDLINE
L63      2 FILE BIOSIS
L64      5 FILE EMBASE
L65      5 FILE CAPLUS
TOTAL FOR ALL FILES
L66      16 S L36 AND L61

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L67          4 FILE MEDLINE
L68          2 FILE BIOSIS
L69          5 FILE EMBASE
L70          3 FILE CAPLUS
TOTAL FOR ALL FILES
L71          14 S L66 NOT (L27 OR L51)
L72          11 DUP REM L71 (3 DUPLICATES REMOVED)
L73          13544 FILE MEDLINE
L74          16315 FILE BIOSIS
L75          10468 FILE EMBASE
L76          17571 FILE CAPLUS
TOTAL FOR ALL FILES
L77          57898 S SMITH J?/AU
L78          0 FILE MEDLINE
L79          0 FILE BIOSIS
L80          0 FILE EMBASE
L81          2 FILE CAPLUS
TOTAL FOR ALL FILES
L82          2 S LANNIGAN MACARA D?/AU
L83          0 FILE MEDLINE
L84          0 FILE BIOSIS
L85          0 FILE EMBASE
L86          2 FILE CAPLUS
TOTAL FOR ALL FILES
L87          2 S L77 AND (L82 OR MACARA D?/AU)
L88          0 FILE MEDLINE
L89          0 FILE BIOSIS
L90          0 FILE EMBASE
L91          2 FILE CAPLUS
TOTAL FOR ALL FILES
L92          2 S L5 AND (L82 OR L77 OR MACARA D?/AU)
L93          0 FILE MEDLINE
L94          0 FILE BIOSIS
L95          0 FILE EMBASE
L96          1 FILE CAPLUS
TOTAL FOR ALL FILES
L97          1 S L92 NOT L87

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=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	328.59	531.62
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.84	-5.84

STN INTERNATIONAL LOGOFF AT 12:11:44 ON 22 NOV 2005

CS ST XAVIER COLL, DEPT BOT, PALAYANKOTTAI 627002, TAMIL NADU, INDIA;  
MANONMANIAN SUNDARAM UNIV, DEPT CHEM, PALAYANKOTTAI, TAMIL NADU 6270,  
INDIA; SCI UNIV TOKYO, FAC PHARMACEUT SCI, SHINJUKU KU, TOKYO 162, JAPAN

CYA INDIA; JAPAN

SO CHEMICAL & PHARMACEUTICAL BULLETIN, (OCT 1995) Vol. 43, No. 10, pp.  
1800-1803.  
ISSN: 0009-2363.

PB PHARMACEUTICAL SOC JAPAN, 2-12-15-201 SHIBUYA, SHIBUYA-KU, TOKYO 150,  
JAPAN.

DT Note; Journal

FS LIFE

LA English

REC Reference Count: 8

ED Entered STN: 1995  
Last Updated on STN: 1995  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Clerodane glycosides and flavonoids in *Dicranopteris pedata* and three  
varieties of *D. linearis* were investigated. All the ferns contained a new  
glycoside, (6S,13S)-6-[6-O-acetyl-beta-D-glucopyranosyl-(1-->4)-  
alpha-L-rhamnopyranosyloxy]-13-[alpha-L-rhamnopyranosyl-(1-->4)-beta-D-  
fucopyranosyloxy]-cleroda-3,14-diene, as a chemical marker of this group,  
Flavonoids were limited to flavonol 3-O-glycosides. The ferns and  
isolated flavonoids are as follows; *D. pedata*: afzelin,  
quercitrin, *D. linearis* var, *brevis*: afzelin, quercitrin. *D.*  
*linearis* var, *tenuis*: quercitrin, isoquercitrin. *D. linearis* var,  
*sebastiana*: astragalin, isoquercitrin, rutin, kaempferol  
3-O-(4-O-p-coumaroyl-3-O-alpha-L-rhamnopyranosyl)-alpha-L-rhamnopyranosyl-  
(1-->6)-beta-D-glucopyranoside.

L2 ANSWER 16 OF 23 WPINDEX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2005-546353 [56] WPINDEX

DNC C2005-165620

TI Composition for treating malaria caused by Plasmodium, contains flavonoid  
mono-glycoside or its salt as active ingredient.

DC B04

IN HORII, T; KUBATA, B K; MURAKAMI, K; TAMURA, O; URADE, Y

PA (SANE-N) SANEIGEN FFI KK

CYC 1

PI JP 2005206500 A 20050804 (200556)\* 22

ADT JP 2005206500 A JP 2004-13675 20040121

PRAI JP 2004-13675 20040121

AN 2005-546353 [56] WPINDEX

AB JP2005206500 A UPAB: 20050902  
NOVELTY - Anti-malaria composition containing flavonoid mono-glycoside (1)  
or its salt as an active ingredient, is new.  
DETAILED DESCRIPTION - Anti-malaria composition containing flavonoid  
mono-glycoside of formula (1) or its salt as an active ingredient.  
R1,R2=H, hydroxyl, lower alkoxy, -OCOR9, -OCOOR9 or  
-CONHR9;  
R9=lower alkyl;and  
R3-R8=H, lower alkyl, acyl, lower alkoxy carbonyl or lower alkyl  
carbamoyl.  
An INDEPENDENT CLAIM is also included for method for preparing  
anti-malaria composition, which involves mixing flavonoid mono-glycoside  
(1) or its salt as an active ingredient with carrier or additive.  
ACTIVITY - Antimalarial.  
The ability of ethyl acetate extract of *Euphorbia hirta* (5 mu g/ml)  
to inhibit the growth of *Plasmodium falciparum* was tested. The extract was  
found to have growth inhibition rate of 87.7%.  
MECHANISM OF ACTION - None given.  
USE - For treating malaria caused by Plasmodium.  
ADVANTAGE - The composition is excellent in treating malaria.

Dwg.0/0

L2 ANSWER 17 OF 23 MEDLINE on STN

AN 2003212106 MEDLINE

DN PubMed ID: 12713413

TI Phenolic compounds from *Nymphaea odorata*.

AU Zhang Zhizhen; ElSohly Hala N; Li Xing-Cong; Khan Shabana I; Broedel

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Sheldon E Jr; Raulli Robert E; Cihlar Ronald L; Burandt Charles; Walker Larry A

CS National Center for Natural Products Research, Research Institute of Pharmaceutical Sciences, and Department of Pharmacology, School of Pharmacy, University of Mississippi, University, Mississippi 38677, USA.

NC 5 R01 CA88456-02 (NCI)

SO Journal of natural products, (2003 Apr) 66 (4) 548-50.  
Journal code: 7906882. ISSN: 0163-3864.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200310

ED Entered STN: 20030508  
Last Updated on STN: 20031003  
Entered Medline: 20031002

AB Assay-guided fractionation of the ethanol extract of *Nymphaea odorata* resulted in the identification of two lignans, one new (1) and one known (2), together with six known flavonol glycosides (3-8). The structures of 1-8 were established by spectroscopic analysis as nymphaeoside A (1), icaraside E(4) (2), kaempferol 3-O-alpha-L-rhamnopyranoside (3), afzelin (4), quercetin 3-O-alpha-L-rhamnopyranoside (5), myricetin 3-O-alpha-L-rhamnopyranoside (myricitrin, 6), quercetin 3-O-(6'-O-acetyl)-beta-D-galactopyranoside (7), myricetin 3-O-beta-D-galactopyranoside (8), and myricetin 3-O-(6'-O-acetyl)-beta-D-galactopyranoside (9). Compounds 3, 4, and 7 showed marginal inhibitory effect against fatty acid synthase with IC(50) values of 45, 50, and 25 microg/mL, respectively.

L2 ANSWER 18 OF 23 MEDLINE on STN

AN 96076695 MEDLINE

DN PubMed ID: 8536353

TI Chemical and chemotaxonomical studies on *Dicranopteris* species.

AU Raja D P; Manickam V S; de Britto A J; Gopalakrishnan S; Ushioda T; Satoh M; Tanimura A; Fuchino H; Tanaka N

CS Department of Botany, St. Xavier's College, Tamil Nadu, India.

SO Chemical & pharmaceutical bulletin, (1995 Oct) 43 (10) 1800-3.  
Journal code: 0377775. ISSN: 0009-2363.

CY Japan

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199602

ED Entered STN: 19960221  
Last Updated on STN: 19960221  
Entered Medline: 19960208

AB Clerodane glycosides and flavonoids in *Dicranopteris pedata* and three varieties of *D. linearis* were investigated. All the ferns contained a new glycoside, (6S,13S)-6-[6-O-acetyl-beta-D-glucopyranosyl-(1-->4)-alpha-L-rhamnopyranosyloxy]-13-[alpha-L-rhamnopyranosyl-(1-->4)-beta-D-fucopyranosyloxy]-cleroda-3,14-diene, as a chemical marker of this group. Flavonoids were limited to flavonol 3-O-glycosides. The ferns and isolated flavonoids are as follows; *D. pedata*: afzelin, quercitrin. *D. linearis* var. *brevis*: afzelin, quercitrin. *D. linearis* var. *tenuis*: quercitrin, isoquercitrin. *D. linearis* var. *sebastianiana*: astragalin, isoquercitrin, rutin, kaempferol 3-O-(4-O-p-coumaroyl-3-O-alpha-L-rhamnopyranosyl)-alpha-L-rhamnopyranosyl-(1-->6)-beta-D-glucopyranoside.

L2 ANSWER 19 OF 23 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 1996:31920 BIOSIS

DN PREV199698604055

TI Chemical and chemotaxonomical studies on *Dicranopteris* species.

AU Raja, Diraviam Patric; Manickam, Visuvasam Soosai; De Britto, Alexis John; Gopalakrishnan, Subarayan; Ushioda, Toshiyuki; Satoh, Masako; Tanimura, Akinobu; Fuchino, Hiroyuki; Tanaka, Nobutoshi [Reprint author]

CS Fac. Pharm. Sci., Sci. Univ. Tokyo, Funakawara-machi, Ichigaya, Shinjuku-ku, Tokyo 162, Japan

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SO Chemical and Pharmaceutical Bulletin (Tokyo), (1995) Vol. 43, No. 10, pp. 1800-1803.  
CODEN: CPBTAL. ISSN: 0009-2363.  
DT Article  
LA English  
ED Entered STN: 26 Jan 1996  
Last Updated on STN: 26 Jan 1996  
AB Clerodane glycosides and flavonoids in *Dicranopteris pedata* and three varieties of *D. linearis* were investigated. All the ferns contained a new glycoside, (6S,13S)-6-(6-O-acetyl-beta-D-glucopyranosyl-(1 fwardarw 4)-alpha-L-rhamnopyranosyloxy)-13-(alpha-L-rhamnopyranosyl-(1 fwardarw 4)-beta-D-fucopyranosyloxy)-cleroda-3,14-diene, as a chemical marker of this group. Flavonoids were limited to flavonol 3-O-glycosides. The ferns and isolated flavonoids are as follows; *D. pedata*: afzelin, quercitrin. *D. linearis* var. *brevis*: afzelin, quercitrin. *D. linearis* var. *tenuis*: quercitrin, isoquercitrin. *D. linearis* var. *sebastiana*: astragarin, isoquercitrin, rutin, kaempferol 3-O-(4-O-p-coumaroyl-3-O-alpha-L-rhamnopyranosyl)-alpha-L-rhamnopyranosyl-(1 fwardarw 6)-beta-D-glucopyranoside.

L2 ANSWER 20 OF 23 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AN 1980:129930 BIOSIS  
DN PREV198069004926; BA69:4926  
TI THE PURGATIVE DRUGS 5. THE CONSTITUENTS OF THE FRUITS OF PRUNUS-JAPONICA.  
AU TAKAGI S [Reprint author]; YAMAKI M; MASUDA K; INOUE K; KASE Y  
CS FAC PHARM SCI, MUKAGAWA WOMEN'S UNIV, 4-16 EDAGAWA, NISHINOMIYA, HYOGO, JPN  
SO Yakugaku Zasshi, (1979) Vol. 99, No. 4, pp. 439-442.  
CODEN: YKKZAJ. ISSN: 0031-6903.  
DT Article  
FS BA  
LA JAPANESE  
AB Prunuside from purgative drugs, the fruits of *P. japonica* Thunb. was identified with multiflorin A [kaempferol-3-(6-O-acetyl)-beta-D-glucopyranosyl-(1 -> 4)-alpha-L-rhamnopyranoside]. In addition, 3 compounds, ursolic acid, vanillic acid, protocatechuic acid and 4 known flavonoids, afzelin, kaempferitrin, multiflorin B(VII) and multinoside A were isolated.

L2 ANSWER 21 OF 23 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN  
AN 2005032752 EMBASE  
TI [HPLC investigation of antioxidant components in *Solidaginis herba*].  
SOLIDAGO FAJOK ANTIOXIDANS HATOANYAGAINAK HPLC VIZSGALATA.  
AU Apati P.; Houghton P.J.; Kery A.  
CS P. Apati, Semmelweis Egyetem, Farmakognozia Intezet, Ulloi ut 26, Budapest, H - 1085, Hungary  
SO Acta Pharmaceutica Hungarica, (2004) Vol. 74, No. 4, pp. 223-231.  
Refs: 19  
ISSN: 0001-6659 CODEN: APHGAO  
CY Hungary  
DT Journal; Article  
FS 030 Pharmacology  
037 Drug Literature Index  
LA Hungarian  
SL English; Hungarian  
ED Entered STN: 20050204  
Last Updated on STN: 20050204  
AB Representatives of *Solidago* species have been used in European phytotherapy for centuries as a component of urological and antiphlogistical remedies. *Solidago canadensis* L. (Asteraceae) contains a wide range of active ingredients, such as flavonoids, saponins, hydroxycinnamates and mineral elements, which are responsible for its characteristic anti-inflammatory, spasmolytic and diuretic properties. Quality control of collected *Solidaginis herba* were performed according to the instructions of the X. German Pharmacopoea, while different LC-MS technologies were applied to evaluate the exact phenoloid composition. Three flavonol aglycons (quercetin, kaempferol and isorhamnetin) connected

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to several sugar components (glucose, rhamnose, galactose and rutinose), caffeoylcjuinic acid and a caffeoyl-shikimic acid glycoside were identified in the samples. Quercetin-3-O- $\beta$ -glucoside (isoquercitrin), quercetin-3-O- $\beta$ -galactoside (hyperoside), quercetin-3-O- $\beta$ -rhamnoside (quercitrin), quercetin-3-O- $\beta$ -rutinoside (rutin), kaempferol-3-O- $\beta$ -rhamnoside (afzelin), kaempferol-3-O- $\beta$ -rutinoside (nicotiflorin), caffeoil-quinic acid (chlorogenic acid) were identified in sample "A", while the presence of quercetin, quercetin-3-O- $\beta$ -glucoside (isoquercitrin), quercetin-3-/6"-O-acetyl-/  $\beta$ -glucopiranoside, quercetin-3-O- $\beta$ -rutinoside (rutin), kaempferol, kaempferol-3-O- $\beta$ -glucoside (astragalin), kaempferol-3-/6"-O-acetyl-/  $\beta$ -glucopiranoside, isorhamnetin, isorhamnetin-3-/6"-O- acetyl -/-  $\beta$ -glucopiranoside, isorhamnetin-3-O- $\beta$ -rutinoside (narcissin), caffeoil-quinic acid (chlorogenic acid), caffeoil-shikimic acid-glucoside (dattelic acid-glucoside) were confirmed in sample "B". According to the occurrence of acetyl-glycosides and the diversity of sugar component of flavonoid glycosides *Solidaginis herba* samples chemotaxonically were classified into different varieties. Incidence of acetyl-glycosidic flavonoids and absence of flavonoid galactosides and rhamnosides in the sample "B" together give support for the taxonomic recognition of varieties *Solidago canadensis* L. var. *canadensis* and var. *scabra*. Sample "A" was identified as *Solidago canadensis* L. var. *canadensis*, while sample "B" has proved to be belong to variety *Solidago canadensis* L. var. *scabra*. Due to the same flavonoid aglycons and the large amounts of flavonol glycosides occurring in each drug, phytochemical characteristics of investigated samples proved to be very similar.

L2 ANSWER 22 OF 23 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN  
 AN 2003181303 EMBASE  
 TI Phenolic compounds from *Nymphaea odorata*.  
 AU Zhang Z.; ElSohly H.N.; Li X.-C.; Khan S.I.; Broedel Jr. S.E.; Raulli R.E.; Cihlar R.L.; Burandt C.; Walker L.A.  
 CS H.N. ElSohly, Natl. Ctr. for Nat. Prod. Research, Res. Inst. of Pharmaceut. Sciences, University of Mississippi, University, MS 38677, United States. helsohly@olemiss.edu  
 SO Journal of Natural Products, (1 Apr 2003) Vol. 66, No. 4, pp. 548-550.  
 Refs: 15  
 ISSN: 0163-3864 CODEN: JNPRDF  
 CY United States  
 DT Journal; Article  
 FS 037 Drug Literature Index  
 LA English  
 SL English  
 ED Entered STN: 20030522  
 Last Updated on STN: 20030522  
 AB Assay-guided fractionation of the ethanol extract of *Nymphaea odorata* resulted in the identification of two lignans, one new (1) and one known (2), together with six known flavonol glycosides (3-8). The structures of 1-8 were established by spectroscopic analysis as nymphaeoside A (1), icaraside E(4) (2), kaempferol 3-O- $\alpha$ -L-rhamnopyranoside (afzelin, 3), quercetin 3-O- $\alpha$ -L-rhamnopyranoside (4), myricetin 3-O- $\alpha$ -L-rhamnopyranoside (myricitrin, 5), quercetin 3-O-(6"-O-acetyl)- $\beta$ -D-galactopyranoside (6), myricetin 3-O- $\beta$ -D-galactopyranoside (7), and myricetin 3-O-(6"-O- acetyl)- $\beta$ -D-galactopyranoside (8). Compounds 3, 4, and 7 showed marginal inhibitory effect against fatty acid synthase with IC(50) values of 45, 50, and 25  $\mu$ g/mL, respectively.

L2 ANSWER 23 OF 23 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN  
 AN 95340247 EMBASE  
 DN 1995340247  
 TI Chemical and chemotaxonomical studies on *Dicranopteris* species.  
 AU Raja D.P.; Manickam V.S.; De Britto A.J.; Gopalakrishnan S.; Ushioda T.; Satoh M.; Tanimura A.; Fuchino H.; Tanaka N.  
 CS Faculty of Pharmaceutical Sciences, Science University of Tokyo,

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Funakawara-machi, Ichigaya, Shinjuku-ku, Tokyo 162, Japan  
SO Chemical and Pharmaceutical Bulletin, (1995) Vol. 43, No. 10, pp.  
1800-1803.  
ISSN: 0009-2363 CODEN: CPBTAL  
CY Japan  
DT Journal; Article  
FS 029 Clinical Biochemistry  
LA English  
SL English  
ED Entered STN: 951205  
Last Updated on STN: 951205  
AB Clerodane glycosides and flavonoids in *Dicranopteris pedata* and three  
varieties of *D. linearis* were investigated. All the ferns contained a new  
glycoside, (6S, 13S)-6-[6-O-acetyl- $\beta$ -D-glucopyranosyl-  
(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranosyloxy]-13-[ $\alpha$ -L-  
rhamnopyranosyl $\rightarrow$ 4)- $\beta$ -D-fucopyranosyloxy]-cleroda-3,14-diene,  
as a chemical marker of this group. Flavonoids were limited to flavonol  
3-O-glycosides. The ferns and isolated flavonoids are as follows; *D.*  
*pedata*: afzelin, quercitrin. *D. linearis* var. *brevis*:  
afzelin, quercitrin. *D. linearis* var. *tennis*: quercitrin,  
isoquercitrin. *D. linearis* var. *sebastiana*: astragalin, isoquercitrin,  
rutin, kaempferol 3-O-(4-O-p-coumaroyl-3-O- $\alpha$ -L-rhamnopyranosyl)-  
 $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 6)- $\beta$ -D-glucopyranoside.

=> s kaempferol

20 FILES SEARCHED...

L3 16275 KAEMPFEROL

=> s l3 and (acetyl(s)rhamnopyranosyl)

15 FILES SEARCHED...

L4 62 L3 AND (ACETYL(S) RHAMNOPYRANOSYL)

=> s l4 and treat?

18 FILES SEARCHED...

L5 2 L4 AND TREAT?

=> dis l5 1-2 bib abs

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:284544 CAPLUS

DN 143:322280

TI Biological and chemical study of *Rhamnus lycioides* L. leaves growing in  
Egypt

AU El-Dondity, S. E.

CS Department of Pharmacognosy, Faculty of Pharmacy (boys), Al-Azhar  
University, Cairo, Egypt

SO Egyptian Journal of Biomedical Sciences (2004), 16, 527-539

CODEN: EJBSF3; ISSN: 1110-6379

PB Egyptian Society for Biotechnology

DT Journal

LA English

AB The L D50 of 70 % alc. extract of *Rhamnus lycioides* L. leaves was carried out  
to determine the safety margin of the leaves. A double-blind trial comparing  
different concns. of ointments prepared from 70 % alc. exts. of *Rhamnus*  
*lycioides* L. leaves with, standard therapy, flumethasone pivalate ointment and  
a placebo showed that, the exts. of *Rhamnus lycioides* L. leaves was  
effective in treatment of induced eczema in mice. A  
double-blind clin. trial comparing a 2% ointment prepared from 70 % alc.  
exts. of *Rhamnus lycioides* L. leaves with a 0.2 % flumethasone pivalate  
ointment and a placebo showed that, the 0.2% weight/weight of flumethasone  
pivalate ointment was better than 2% weight/weight *Rhamnus lycioides* L. leaves  
ointment but recurrence is larger in flumethasone pivalate ointment than  
*Rhamnus lycioides* L. leaves ointment. The results obtained with the extract  
were statistically comparable to those obtained with the corticoid  
therapy. Chemical study to isolation and identification of quercetin, and 2  
new flavonol glycosides acetate esters viz., {kaempferol  
-3-O-[2,3,4,-tri-O-acetyl- $\alpha$ -L-rhamnopyranosyl-(1  
 $\rightarrow$  3) - 2,4,- di-O-acetyl- $\alpha$ -L-

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rhamnopyranosyl-(1 → 6)]-β-D-galactopyranoside and  
kaempferol-3-O-[3,4,-di-O-acetyl-α-L-  
rhamnopyranosyl-(1 → 3) - 2,4,- di-O- acetyl  
-α-L- rhamnopyranosyl-(1 → 6)]-β-D-  
galactopyranoside}. This is also the first report for isolation of  
quercetin from this species.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 USPATFULL on STN  
AN 2002:105722 USPATFULL  
TI Novel compositions derived from cranberry and grapefruit and therapeutic  
uses therefor  
IN Leahy, Margaret M., Pocasset, MA, UNITED STATES  
Starr, Martin, Plymouth, MA, UNITED STATES  
Kurowska, Elzbieta, London, CANADA  
Guthrie, Najla, London, CANADA  
PI US 2002054924 A1 20020509  
AI US 2001-835121 A1 20010413 (9)  
PRAI US 2000-196886P 20000413 (60)  
DT Utility  
FS APPLICATION  
LREP LAHIVE & COCKFIELD, 28 STATE STREET, BOSTON, MA, 02109  
CLMN Number of Claims: 23  
ECL Exemplary Claim: 1  
DRWN 6 Drawing Page(s)  
LN.CNT 2406  
AB Novel compositions derived from grapefruit and cranberry are disclosed,  
as well as therapeutic uses for the compositions in treating  
or preventing cancer and hypercholesterolemia in a subject. The  
compositions are, in particular embodiments, derived from grapefruit  
essence oil, grapefruit peel oil, grapefruit peel, and decharacterized  
cranberry fruit.

=> s l3 and (alkoxy(a)rhamnopyranosyl)  
L6 0 L3 AND (ALKOXY(A) RHAMNOPYRANOSYL)

=> dis hist

(FILE 'HOME' ENTERED AT 10:54:14 ON 29 NOV 2005)

FILE 'APOLLIT, BABS, CAPLUS, CBNB, CEN, CIN, COMPENDEX, DISSABS, EMA,  
IFIPAT, JICST-EPLUS, NTIS, PASCAL, PROMT, RAPRA, SCISEARCH, TEXTILETECH,  
USPATFULL, USPAT2, WPIFV, WPINDEX, WSCA, WTEXTILES, MEDLINE, BIOSIS,  
EMBASE' ENTERED AT 10:54:35 ON 29 NOV 2005

L1 268 S AFZELIN  
L2 23 S L1 AND (ALKOXY OR ACETYL)  
L3 16275 S KAEMPFEROL  
L4 62 S L3 AND (ACETYL(S) RHAMNOPYRANOSYL)  
L5 2 S L4 AND TREAT?  
L6 0 S L3 AND (ALKOXY(A) RHAMNOPYRANOSYL)

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=> s l36 and l46

L47 0 FILE MEDLINE  
L48 0 FILE BIOSIS  
L49 0 FILE EMBASE  
L50 3 FILE CAPLUS

TOTAL FOR ALL FILES

L51 3 L36 AND L46

=> d 1-3 ibib abs hitstr

L51 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:101479 CAPLUS

DOCUMENT NUMBER: 142:329195

TITLE: Identification of the first specific **inhibitor** of p90 ribosomal S6 kinase (RSK) reveals an unexpected role for RSK in cancer cell proliferation

AUTHOR(S): Smith, Jeffrey A.; Poteet-Smith, Celeste E.; Xu, Yaming; Errington, Timothy M.; Hecht, Sidney M.; Lannigan, Deborah A.

CORPORATE SOURCE: Center for Cell Signaling, University of Virginia, Charlottesville, VA, USA

SOURCE: Cancer Research (2005), 65(3), 1027-1034

CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB P90 ribosomal S6 kinase (RSK) is an important downstream effector of mitogen-activated protein kinase, but its biol. functions are not well understood. The authors have now identified the first small-mol., RSK-specific **inhibitor**, which they isolated from the tropical plant **Forsteronia refracta**. The authors have named this novel **inhibitor** SL0101. SL0101 shows remarkable specificity for RSK. The major determinant of SL0101-binding specificity is the unique ATP-interacting sequence in the amino-terminal kinase domain of RSK. SL0101 **inhibits** proliferation of the human breast cancer cell line MCF-7, producing a cell cycle block in G1 phase with an efficacy paralleling its ability to **inhibit** RSK in intact cells. RNA interference of RSK expression confirmed that RSK regulates MCF-7 proliferation. Interestingly, SL0101 does not alter proliferation of a normal human breast cell line MCF-10A, although SL0101 **inhibits** RSK in these cells. RSK is overexpressed in .apprx. 50% of human breast cancer tissue samples, suggesting that regulation of RSK has been compromised. Thus, RSK has an unexpected role in proliferation of transformed cells and may be a useful new target for chemotherapeutic agents. SL0101 will provide a powerful new tool to dissect the mol. functions of RSK in cancer cells.

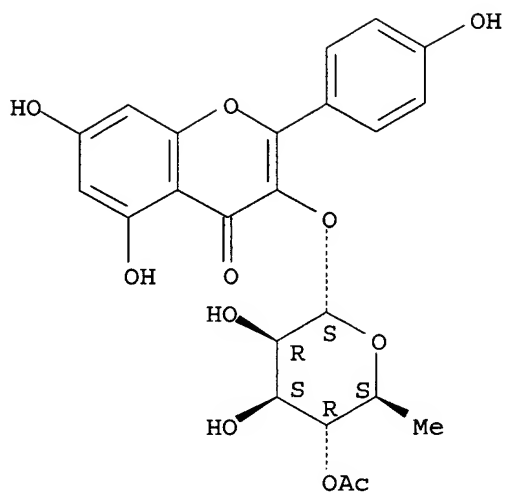
IT 77307-50-7

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (identification of first specific **inhibitor** of p90 ribosomal S6 kinase (RSK) reveals an unexpected role for RSK in cancer cell proliferation)

RN 77307-50-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[(3,4-di-O-acetyl-6-deoxy- $\alpha$ -L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> s therap? or treat? or inhibit?

L28 4653890 FILE MEDLINE

L29 3541114 FILE BIOSIS

L30 4235684 FILE EMBASE

L31 4773546 FILE CAPLUS

75% OF LIMIT FOR TOTAL ANSWERS REACHED

COMMAND INTERRUPTED

If this message appears repeatedly, please notify the Help Desk.

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=> s l12 and (therap? or treat? or inhibit?)

L32 869 FILE MEDLINE

L33 782 FILE BIOSIS

L34 1208 FILE EMBASE

L35 3182 FILE CAPLUS

TOTAL FOR ALL FILES

L36 6041 L12 AND (THERAP? OR TREAT? OR INHIBIT?)

=> s rsk! and l36

L37 0 FILE MEDLINE

L38 0 FILE BIOSIS

L39 0 FILE EMBASE

L40 0 FILE CAPLUS

TOTAL FOR ALL FILES

L41 0 RSK! AND L36

=> s forsteronia refracta or zingiber zerumbet

L42 14 FILE MEDLINE

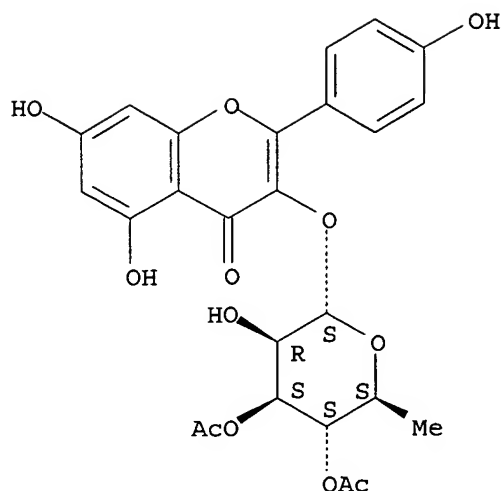
L43 46 FILE BIOSIS

L44 14 FILE EMBASE

L45 74 FILE CAPLUS

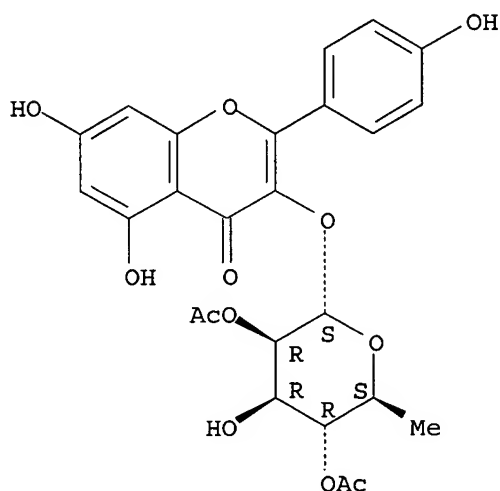
TOTAL FOR ALL FILES

L46 148 FORSTERONIA REFRACTA OR ZINGIBER ZERUMBET



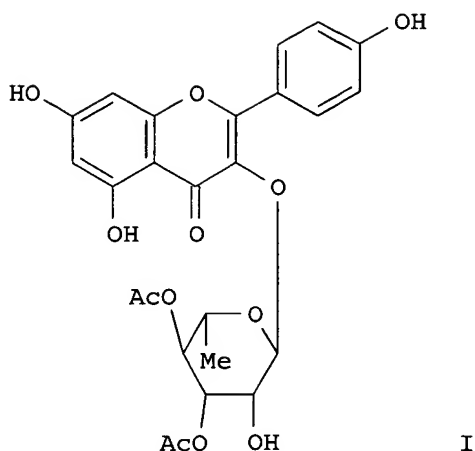
IT 133882-73-2P, SL 0101-2 135618-17-6P, SL 0101-3  
 RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
 (Rsk inhibitors and therapeutic uses)  
 RN 133882-73-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[(2,4-di-O-acetyl-6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 135618-17-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[(4-O-acetyl-6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB The invention discloses compds. and **compns.** that have **Rsk**-specific inhibitory activity. Compds. of the invention include small mol. inhibitors, e.g. I. Synthetic procedures leading to I are described, as are isolation procedures from *Forsteronia refracta*. Other **Rsk**-specific inhibitors include e.g. antisense oligonucleotides. In addition, inhibition of **Rsk** by the compds. has been discovered to halt the proliferation of cancer cell lines while having little effect on the proliferation rate of normal cells. Therefore, the invention identifies **Rsk** as a target for therapeutic intervention in diseased states in which the disease or the symptoms can be ameliorated by inhibition of **Rsk** catalytic activity.

IT 77307-50-7P, SL 0101-1

RL: DMA (Drug mechanism of action); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)  
(**Rsk** inhibitors and therapeutic uses)

RN 77307-50-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[(3,4-di-O-acetyl-6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).